APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,038	07/29/2003	Zhenghua Yu	CR1114AC	9271

7590 04/16/2007	EXAMINER
DANIEL K. NICHOLS Motorola, Inc. - Law Department 1303 E. Algonquin Road Schaumburg, IL 60196	KAU, STEVEN Y

ART UNIT	PAPER NUMBER
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after t he mailing date of this com munication, even if timely filed, may re duce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2003*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *7/29/2003*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on July 29, 2003 is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner.

Drawings

2.   Applicants submitted new drawings Figures 1-7 on November 4, 2005, and these

drawings have been accepted for application prosecution.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

4.   Claims 6-13 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter as follows:

Claims 6-13 define a method, which are merely claiming for computer

programming steps. The method claims for (a). obtaining values of one or more input

parameters, the input parameters being representative of the state of the electronic

device; (b). selecting suitable processing modes for the post-processing modules, the

selection being based on the values of the input parameters and the complexity of the

processing modes; and (c). performing the post-processing of the media data using a selected one of the suitable processing modes. The recited method is with functional descriptive material. While functional descriptive material may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, a "computer programming steps" per se does not fall within any of the four statutory classes of 35 U.S.C. §101. Furthermore, a "computer programming steps" is not a "machine", "composition of matter" or a "manufacture" because these statutory classes "relate to structural entities and can be grouped as 'product' claims in order to contrast them with process claims." (1 D. Chisum, Patents § 1.02 (1994)). Machines, manufactures and compositions of matter are embodied by physical structures or material, whereas a "computer program steps" has neither a physical structure nor a tangible material. That is, a "computer programming steps" is not a "machine" because it has no physical structure, and does not perform any useful, concrete and tangible result. Likewise, a "computer program steps" is not a "composition of matter" because it is not "matter", but rather a form of conceptual idea. Finally, a "computer program steps" is not a "manufacture" because all traditional definitions of a "manufacture" have required some form of physical structure, which a claimed "computer programming steps" does not have.

> A "manufacture" is defined as "the production of articles for use from raw materials or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." Diamond v. Chakrabarty, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting American Fruit Growers, Inc. v. Brogdex Co., 283 U.S. 1, 11, 8 USPQ 131, 133 (1931).

Therefore, a method merely claims for computer program steps is considered

non-statutory because it is a form of conceptual idea, in the absence of any physical

structure or tangible material, that does not fall within any of the four statutory classes of

35 U.S.C. §101.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-2, 6-9, 13, 14-17 and 21 are rejected under 35 U.S.C. 102(b) as being

anticipated by Lee et al (Lee) (US 6,539,060).

With regard to claim 6, Lee discloses an image data post-processing method, in

that he anticipates a method of adaptive post-processing of media data (e.g. an image)

in an electronic device (e.g. an apparatus for MPEG image, col 2, lines 24-29), the post-

processing being performed using one or more post-processing modules, the post-

processing modules comprising one or more processing modes with different

complexities (Figure 1, col 6, lines 52-57), the method comprising: (a). obtaining values

of one or more input parameters (e.g. a semaphore detector detecting a parameter col

5, lines 37-55), the input parameters being representative of the state of the electronic

device (Figure 1, col 6, lines 63-67 & col 7, lines 1-9); (b). selecting suitable processing

modes for the post-processing modules, the selection (e.g. extraction) being based on

the values of the input parameters and the complexity of the processing modes (Figures

1 & 2, col 7, 63-67 & col 8, lines 1-27); and (c). performing the post-processing of the

media data using a selected one of the suitable processing modes (e.g. de-blocking, de-

ringing) (Figures 1, 6, 7 and 8, col 9, lines 10-67 & col 10, lines 1-64).

With regard to claim 7, Lee anticipates that obtaining the values of one or more

input parameters comprises continuously monitoring the values of the input parameters

(Figure 1, col 7, 63-67 & col 8, lines 1-27).

With regard to claim 8, Lee anticipates that in claim 6 wherein the method further

comprises generating a table, the table defining the suitable processing modes to be

used for a given range of input parameter values (col 40-59).

With regard to claim 9, Lee anticipates the method as recited in claim 8 wherein

generating the table (e.g. Table 1 of Lee, using SAF weighting factor to indicate different

processing modes in post-processing modules) comprises (a). obtaining the processing

modes available in the post-processing modules (e.g. filtering in deranging, col 10, lines

54-64) ; (b). obtaining all combinations of processing modes, each combination

containing one processing mode from each processing module (e.g. edge detection and

filtering in deranging process, col 10 54-64); (c). obtaining output quality for each

combination of the processing mode (Table 1, col 11, lines 60-67 & col 12, lines 1-17);

(d). arranging the combinations of processing modes in increasing order of complexity

(Table 1, col 11, lines 60-67 & col 12, lines 1-17); (e). eliminating the combinations that

do not give higher quality compared to the combinations having lower complexity (Table

1, col 11, lines 60-67 & col 12, lines 1-17); and (f). allocating ranges of input parameter values for each combination of processing modes (col 10, lines 65-67 & col 11, lines 1-39).

With regard claim 13, Lee anticipates that the method as recited in claim 7 wherein selecting the suitable processing modes comprises: (a). for each input parameter value, obtaining a combination of processing modes to be used (e.g. detecting, extraction, filtering, compensation, de-blocking, etc) (col 5, lines 37-55); b. determining an overall complexity for each of the combinations corresponding to the input parameter values (col 5, lines 37-55, col 7, lines 64-67 & col 8, lines 1-2); and c. selecting the combination of the processing modes having minimum overall complexity (col 10, lines 54-64).

With regard to claim 14, the structure elements of method claim 6 perform all steps of computer program product claim 14. Thus claim 14 is rejected under 102(b) for the same reason discussed in the rejection of claim 6.

With regard to claim 15, the structure elements of method claim 7 perform all steps of computer program product claim 15. Thus claim 15 is rejected under 102(b) for the same reason discussed in the rejection of claim 7.

With regard to claim 16, the structure elements of method claim 8 perform all steps of computer program product claim 16. Thus claim 16 is rejected under 102(b) for the same reason discussed in the rejection of claim 8.

With regard to claim 17, the structure elements of method claim 9 perform all steps of computer program product claim 17. Thus claim 17 is rejected under 102(b) for the same reason discussed in the rejection of claim 9.

With regard to claim 21, the structure elements of method claim 13 perform all steps of computer program product claim 21. Thus claim 21 is rejected under 102(b) for the same reason discussed in the rejection of claim 13.

With regard to claim 1, Lee anticipates a system suitable for adaptive post-processing of media data in an electronic device, the system comprising: (a). one or more post-processing modules, the post-processing modules (e.g. de-blocking, de-ringing) performing post-processing of the media data, each post-processing module comprising one or more processing modes (e.g. methods, i.e. extraction, filtering) with different complexities (Figures 1-8, col 5, lines 37-55, col 7, lines 64-67 & col 8, lines 1-2); and (b). an adaptive mode decision module coupled to the post-processing modules, wherein the adaptive mode decision module decides suitable processing modes to be used in the post-processing modules, the decision being based on one or more values of input parameters, the input parameters being representative of the state of the electronic device (Figures 1-8, col 5, lines 37-55, col 7, lines 64-67 & col 8, lines 1-2).

With regard to claim 2, Lee anticipates that (a). an input module, the input module (e.g. a semaphore extractor) receiving the input parameters (Figure 1, col 6, lines 52-62); (b). a table module relating the processing modes of the post-processing modules and all possible values of the input parameters (col 11, lines 60-67 & col 12, lines 1-15); and (c). an output module coupled to the input module and the table

module, the output module selecting the suitable processing modes of the post-

processing modules (Figure 1, col 6, lines 14-17).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 3-5, 10-12 and 18-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lee et al (Lee) (US 6,539,060) in view of Kim et al (Kim) (US

6,950,473).

With regard to claim 10, Lee differs from claim 10, in that he does not teach

obtaining the input parameters comprises obtaining remaining battery power in the

electronic device.

Kim discloses a method of reducing artifacts in digital data, in that he teaches

obtaining the input parameters comprises obtaining remaining battery power in the

electronic device (col 4, lines 48-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have modified Lee to include obtaining the input parameters

comprises obtaining remaining battery power in the electronic device taught by Kim to

provide effective power-scalable technique for reducing blocking and ringing artifacts

from still image (col 2, lines 7-10).

With regard to claim 11, Lee differs from claim 11, in that he does not teach

obtaining the input parameters comprises obtaining processor usage of the electronic

device.

Kim teaches that obtaining the input parameters comprises obtaining processor

usage of the electronic device (Figure 9, col 11, lines 65-67 & col 12, lines 1-8 , lines

63-67 & col 13, lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have modified Lee to include obtaining the input parameters

comprises obtaining processor usage of the electronic device taught by Kim to provide

effective power-scalable technique for reducing blocking and ringing artifacts from still

image (col 2, lines 7-10).

With regard to claim 12, Lee differs from claim 12, in that he does not teach

obtaining the input parameters comprises obtaining user preference, the user

preference indicating desired output quality of the media data.

Kim teaches that obtaining the input parameters comprises obtaining user

preference, the user preference indicating desired output quality of the media data (col

9, lines 41-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have modified Lee to obtaining the input parameters comprises

obtaining user preference, the user preference indicating desired output quality of the

media data taught by Kim to provide effective power-scalable technique for reducing

blocking and ringing artifacts from still image (col 2, lines 7-10).

With regard to claim 18, the structure elements of method claim 10 perform all

steps of computer program product claim 18. Thus claim 18 is rejected under 103(a) for

the same reason discussed in the rejection of claim 10.

With regard to claim 19, the structure elements of method claim 11 perform all

steps of computer program product claim 19. Thus claim 19 is rejected under 103(a) for

the same reason discussed in the rejection of claim 11.

With regard to claim 20, the structure elements of method claim 12 perform all

steps of computer program product claim 20. Thus claim 20 is rejected under 103(a) for

the same reason discussed in the rejection of claim 12.

With regard to claim 3, the structure elements of method claim 10 perform all

steps of computer program product claim 3. Thus claim 3 is rejected under 103(a) for

the same reason discussed in the rejection of claim 10.

With regard to claim 4, the structure elements of method claim 11 perform all

steps of computer program product claim 4. Thus claim 4 is rejected under 103(a) for

the same reason discussed in the rejection of claim 11.

With regard to claim 5, the structure elements of method claim 12 perform all

steps of computer program product claim 5. Thus claim 5 is rejected under 103(a) for

the same reason discussed in the rejection of claim 12.

Correspondence Information

9.   Applicant is advised that the reply to this requirement to be complete must

include an election of the invention to be examined even though the requirement is

traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected

invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by

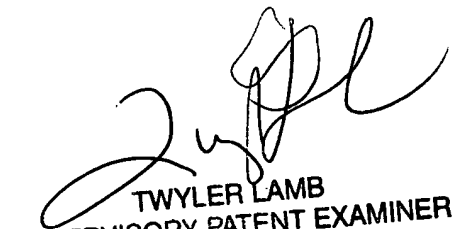a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Steven Kau whose telephone number is (571) 270-

1120. The examiner can normally be reached on Monday to Friday, from 8:30 AM –

8:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Twyler Lamb can be reached on (571) 272-7406. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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April 11, 2007

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SUPERVISORY PATENT EXAMINER